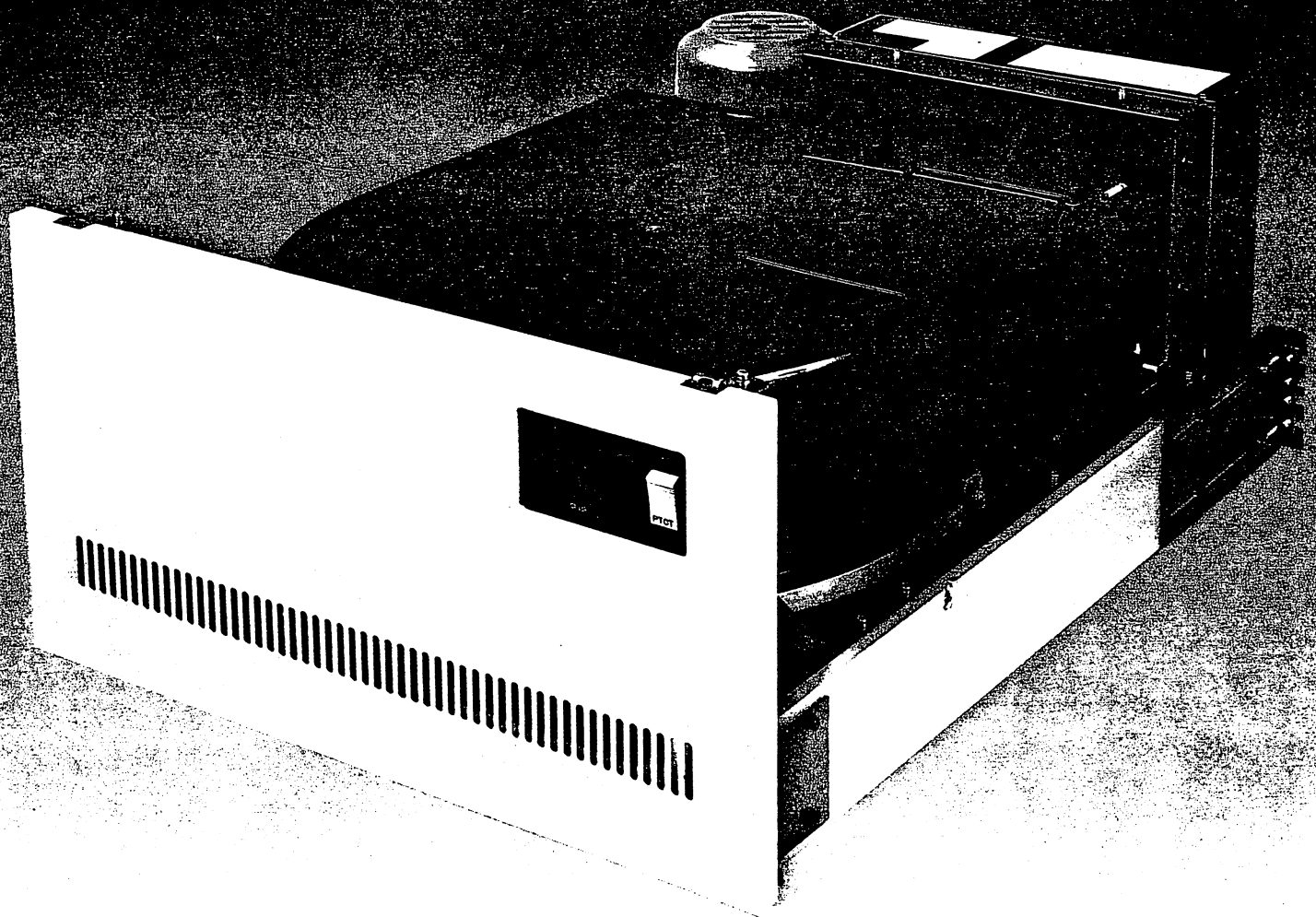


OEM DISK DRIVES

M2294K/N

14-inch Winchester-type fixed disk drives with 336-megabyte storage capacity.



M2294K

FUJITSU

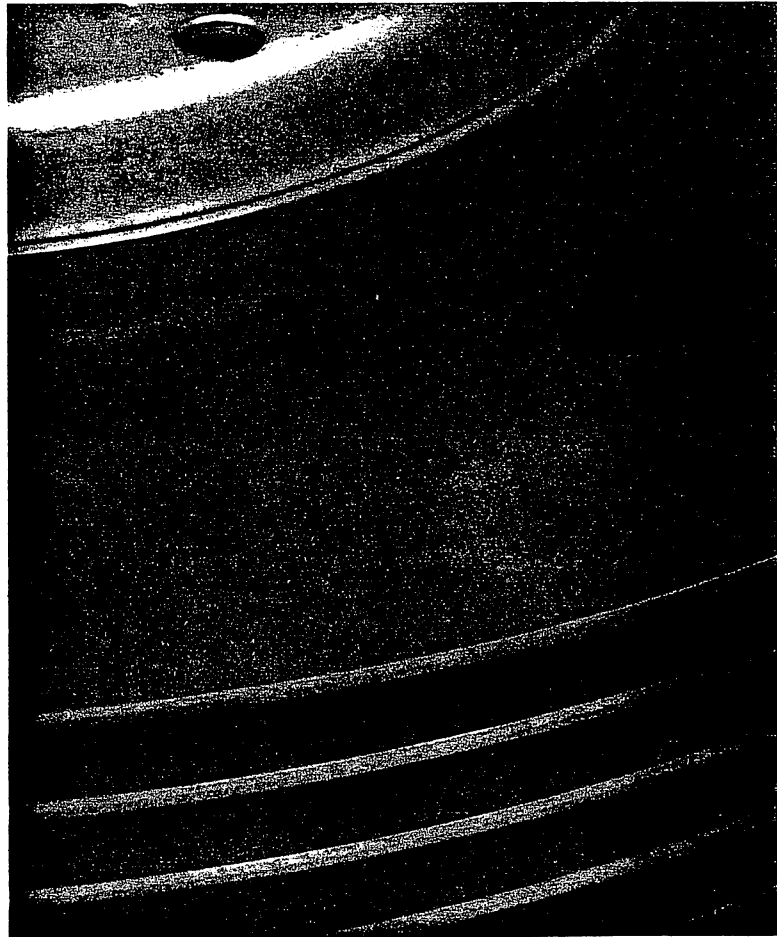
The M2294K and M2294N are 14-inch (356mm) Winchester-type fixed disk drives that provide a large storage capacity, high performance, and enhanced reliability. The M2294K requires a 100, 115, or 120 VAC power supply, and the M2294N requires either 220 or 240 VAC. These power supplies are available as options. Each model consists mainly of a disk enclosure, a spindle drive motor, and five printed circuit boards. The disk enclosure integrates five disks, Winchester-type contact start/stop heads, a rotary actuator, a spindle, and IC read preamplifiers.

Large capacity, high performance

The M2294K and M2294N each provide a large unformatted storage capacity of 336 megabytes. The average positioning time is 27 milliseconds and the data transfer rate is 1,012 kilobytes per second.

Reliable, maintenance free

The completely sealed disk enclosure incorporates a breathing filter and an absolute recirculation filter to provide a contamination-free environment. Winchester-type contact start/stop heads eliminate moving parts for head loading and unloading. The Head IC (HIC) prevents read errors caused by external electrical noise. These features assure the M2294K/N a mean-time-between-failures (MTBF) exceeding 10,000 power-on hours. Also no preventive maintenance is required. The compact disk enclosure can be replaced easily by customer engineers, and mean-time-to-repair (MTTR) is less than one hour.



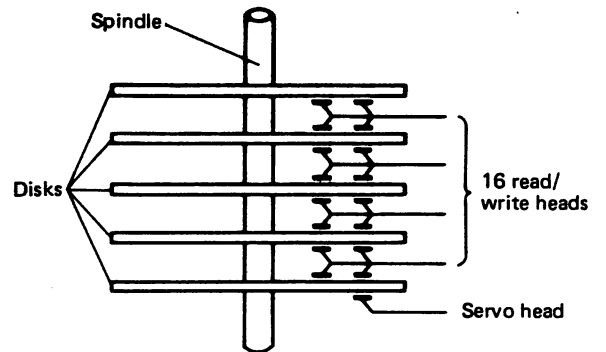
Compact, economical

The M2294K/N disk drives can be mounted in a 19-inch rack in 6 pitches, saving installation space. Each model can also be mounted vertically in a system cabinet. And the rotary actuator greatly reduces power consumption and heat dissipation.

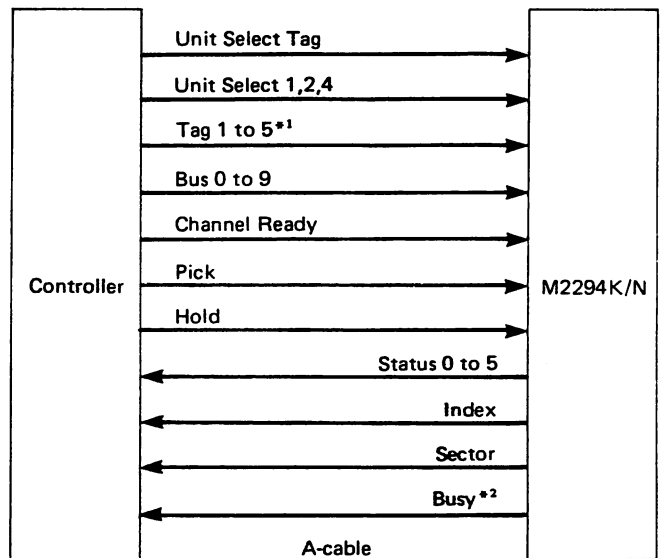
Dual channel option

The M2294K/N can be accessed by two controllers when the dual channel option is provided.

Head-disk structure

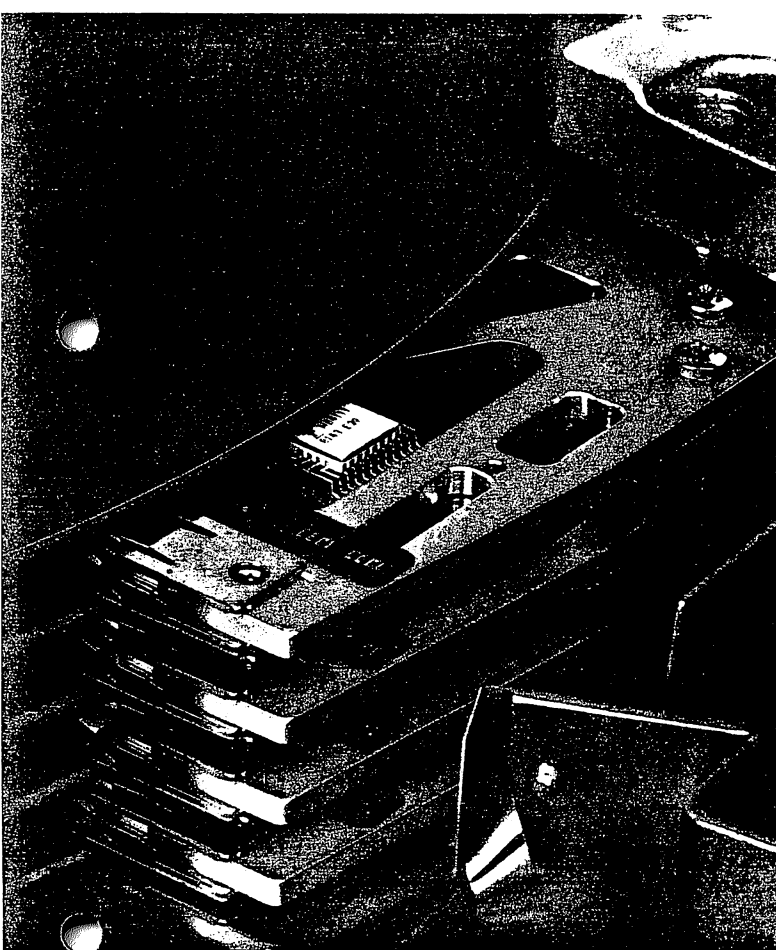
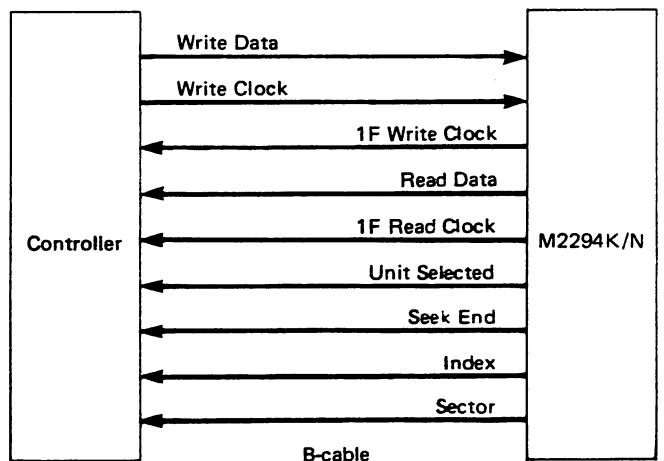


SMD interface



*1. Tag 4 and Tag 5 are switchable to each other.

*2. Busy signal is used with the dual channel option.



FUNCTIONAL SPECIFICATIONS

		M2294K/N
Storage capacity (unformatted)		335.54 megabytes
Disks (14-inch)		5
Heads	Read/write	16
	Servo	1
Track capacity (unformatted)		20,480 bytes
Tracks per cylinder		16
Cylinders		1,024 (including alternate cylinders)
Sectors	Fixed	2 or more
	Variable	Available
Positioning time	Track-to-track	6 milliseconds
	Average	27 milliseconds
	Maximum	55 milliseconds
Average latency time		10.12 milliseconds
Rotational speed		2,964 rotations/minute
Recording density		6,500 bits/inch
Track density		793 tracks/inch
Data transfer rate		1,012 kilobytes/second
Recording code		MFM (Modified Frequency Modulation)
Interface code		NRZ (Non-Return-to-Zero)
Interface		Standard SMD (Storage Module Drive)
Head positioning method		Servo-controlled track-following
Start time		Less than 40 seconds
Stop time		Less than 30 seconds

PHYSICAL SPECIFICATIONS

		M2294K	M2294N
Power requirements	Operating	100VAC±10%, 50/60Hz±½%, 2.5A 115/120VAC±10%, 60Hz±1%, 3A	220 ^{±2} / _{±1} VAC, 50Hz±½%, 2A 240 ^{±2} / _{±1} VAC, 50Hz±½%, 2A
	Start-up	100VAC±10%, 50/60Hz±½%, 8A 115/120VAC±10%, 60Hz±1%, 9.5A	220 ^{±2} / _{±1} VAC, 50Hz±½%, 5A 240 ^{±2} / _{±1} VAC, 50Hz±½%, 5A
Dimensions	Height	250 mm (9.84 in)	
	Width	416 mm (16.38 in)	
	Depth	650 mm (25.59 in)	
Weight		45 kg (99.2 lb)	
Ambient temperature	Operating	5°C to 40°C (41°F to 104°F)	
	Not operating	-40°C to 60°C (-40°F to 140°F)	
	Gradient	Less than 15°C (27°F)/hour	
Relative humidity	Operating	20% to 80% (non condensing)	
	Not operating	5% to 95% (non condensing)	
Vibration and shock resistance	Operating	Max. 0.2G (5Hz to 50Hz) Max. 1G (50Hz to 500Hz) Shock: max. 2G (max. 10 ms)	
		Max. 0.4G (5Hz to 50Hz) Max. 1G (50Hz to 500Hz) Shock: max. 3G (max. 10 ms)	
	In storage or transport	Shock: max. 5G (max. 10 ms)	
Altitude	Operating	3,000 m (10,000 ft)	
	Not operating	12,000 m (40,000 ft)	

RELIABILITY SPECIFICATIONS

		M2294K/N
Mean-time-between-failures (MTBF)		More than 10,000 power-on hours
Mean-time-to-repair (MTTR)		Less than 1 hour
Component life		5 years
Error rates	Recoverable errors	10 per 10 ¹¹ bits read
	Unrecoverable errors	10 per 10 ¹⁴ bits read
	Seek errors	10 per 10 ⁸ seeks


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Specifications are subject to change without notice. For the latest information, contact your local Fujitsu representative.
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